

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Original): Oxidised zinc compound in the form of micro-spherules consisting of smaller unitary particles having a Flodex index of less than 15.

Claim 2 (Currently Amended): Oxidised zinc compound according to Claim 1, ~~characterised in that it has~~ having a Flodex index of less than 10.

Claim 3 (Currently Amended): Oxidised zinc compound according to Claim 1 ~~or 2~~, ~~characterised in that it has~~ having a compressibility index [(packed density – apparent density) x 100/packed density] of less than 20%.

Claim 4 (Currently Amended): Oxidised zinc compound according to Claim 3, ~~characterised in that it has~~ having a compressibility index of less than 15%.

Claim 5 (Currently Amended): Oxidised zinc compound according to ~~any one of the preceding claims~~ claim 1, ~~characterised in that it has~~ having a BET specific surface of less than 100 m²/g.

Claim 6 (Currently Amended): Oxidised zinc compound according to Claim 5, ~~characterised in that it has~~ having a BET specific surface of less than 50 m²/g.

Claim 7 (Currently Amended): Oxidised zinc compound according to ~~any one of the preceding claims~~ claim 1, ~~characterised in that~~ wherein the micro-spherules have a D₅₀ (size corresponding to 50% of the total granulometric distribution curve) of between approximately 50 and approximately 200 µm ~~approximately~~.

Claim 8 (Currently Amended): Oxidised zinc compound according to Claim 7, ~~characterised in that~~ wherein the micro-spherules have a D₅₀ of between approximately 50 and approximately 100 µm, ~~preferably between 70 and 90 µm approximately.~~

Claim 9 (Currently Amended): Oxidised zinc compound according to ~~any one of the preceding claims claim 1,~~ characterised in that wherein the micro-spherules consist of smaller unitary particles having a D₅₀ of between approximately 1 and approximately 15 µm approximately, without binder.

Claim 10 (Currently Amended): Oxidised zinc compound according to ~~any one of the preceding claims claim 1,~~ characterised in that it is chosen from amongst selected from the group consisting of a zinc oxide, a zinc hydroxide, a zinc carbonate, a zinc hydroxycarbonate or a mixture of these.

Claim 11 (Currently Amended): Method of preparing an oxidised zinc compound in the form of micro-spherules consisting of smaller unitary particles having a Flodex index of less than 15 ~~according to any one of the preceding claims,~~ characterised in that it consists , comprising the step of injecting, by ~~means of~~ a nozzle (6), an aqueous suspension of the said oxidised zinc compound, having a solid matter content of 25% to 70% by weight, at a pressure of approximately 10 to approximately 100 bar ~~approximately~~, within an atomisation chamber (4), in a stream of gas entering at a temperature of approximately 250° to approximately 800°C ~~approximately~~ and emerging at a temperature of approximately 50° to approximately 300°C ~~approximately~~.

Claim 12 (Currently Amended): Method according to Claim 11, ~~characterised in that~~ wherein the solid matter content is between 40% and 45% by weight in the aqueous suspension.

Claim 13 (Currently Amended): Method according to Claim 11, ~~characterised in that~~ wherein the aqueous suspension has a solid matter content of between 45% and 70% by weight, and in that a dispersing agent, such as a polyacrylate, is added to the said suspension.

Claim 14 (Currently Amended): Method according to ~~any one of Claims 11 to 13~~ Claim 11, ~~characterised in that~~ wherein the injection pressure is between approximately 15 and approximately 80 bar~~approximately~~.

Claim 15 (Currently Amended): Method according to ~~any one of Claims 11 to 14~~ Claim 11, ~~characterised in that~~ wherein the temperature of the gas at the discharge from the atomisation chamber (4) is between approximately 90° and approximately 220°C~~approximately~~.

Claim 16 (Currently Amended): Method according to Claim 15, ~~characterised in that~~ wherein the temperature of the gas emerging from the atomisation chamber (4) is between approximately 105° and approximately 170°C~~approximately~~.

Claim 17 (Currently Amended): Method according to ~~any one of Claims 11 to 16~~ Claim 11, ~~characterised in that~~ wherein the gas is air.

18. Use of an oxidised zinc compound in the form of micro-spherules consisting of smaller unitary particles having a Flodex index of less than 15 ~~according to any one of Claims 1 to 10, or a product according to any one of Claims 11 to 17,~~ in the cross-linking of polymers.

Claim 19 (Original): Use according to Claim 18, in the vulcanisation of elastomer.

Claim 20 (Currently Amended): Use of an oxidised zinc compound in the form of micro-spherules consisting of smaller unitary particles having a Flodex index of less than 15 ~~according to any one of Claims 1 to 10, or a product according to any one of Claims 11 to 17,~~ as a pigment or filler, in paints, glass or ceramics.

Claim 21 (New): Oxidised zinc compound according to Claim 7, wherein the micro-spherules have a D_{50} of between approximately 70 and approximately 90 μm .